Amendments to the Specification:

Please add the following new paragraph on Page 1, above line 1:

--CROSS REFERENCE TO RELATED APPLICATIONS

Applicants claim priority under 35 U.S.C. §119 of German Application No. 103 47 331.9 filed October 10, 2003. Applicants also claim priority under 35 U.S.C. §365 of PCT/DE2004/002242 filed October 8, 2004. The international application under PCT article 21(2) was not published in English.--

Please replace the paragraph beginning at Page 3, line 13, to Page 4, line 2, with the following rewritten paragraph:

--The use of the known hot-embossing techniques for the production of optical layers furthermore ~~have~~ has the disadvantage that because of the temperatures that act on them, and the necessary pressure, it is not possible to achieve particularly good optical properties of the optical layers produced in this manner. While it is true that the photo-curing materials used in the hot-embossing techniques permit waveguide structuring by means of photo processes or etching processes, simple production of the coupling mirrors required for passing the light into and out of the optical layer is not possible in

this connection. On the other hand, while it is true that waveguides having deflection mirrors at their ends can be produced in the case of thermoplastic materials, by means of molding techniques, these are not resistant to the required solder bath temperatures, because of the glass temperatures, which are generally low.--

Page 24, lines 9-17, replace this paragraph as follows:

--Fig. 2d shows the waveguide core layer 22, after it was covered by pouring on a polysiloxane polymer 29 having a low index of refraction with the number n_3 ($n_3 < n_2$). This layer forms the waveguide substrate layer 29 and preferably possesses the same index of refraction n_1 as the superstrate 23. The substrate polymer layer 29, which is still liquid, is also covered with a panel 30 of printed circuit board material, which contains mechanical support structures 31 that function as spacers and ~~guarantees~~ guarantee a defined substrate thickness after a pressing process.--